Brazil FETP

Background and Goals

Created in 2000 with assistance from the U.S. Centers for Disease Control and Prevention (CDC), the Brazil Field Epidemiology Training Program (called EPISUS) had 64 graduates as of 2009, with another 21 trainees enrolled.

One of the program's significant contributions has been improving Brazil's surveillance system evaluation efforts. In the past, surveillance systems assessments were not analyzed regularly because the public health workforce lacked appropriate skills.

With knowledge gained in the program, graduates enhance the ability of the Brazilian Ministry of Health (MOH) to evaluate systems that track injuries, diseases, and deaths. These skills have allowed the MOH to prioritize public health activities and track progress towards disease prevention in order to implement effective public health policies.

Strengthening the Public Health Workforce

Two-thirds of EPISUS graduates stay within the Secretariat of Health Surveillance. Many also stay at the federal MOH level where they have supervisory roles as staff supervisors and senior epidemiologists.

The largest contribution of the graduates is introducing modern outbreak investigation and surveillance assessment techniques and complex analyses to Brazil's public health efforts. Graduates now routinely analyze surveillance data, which was not the norm before the creation of the program.

Achieving Sustainability

The Brazil MOH is highly committed to the program and has funded it since its inception. In 2008, EPISUS became an official program within the MOH. Trainees are MOH fellows, and the MOH pays for their travel and other expenses as well as the salaries of directors and supervisors.

Effecting Policy Changes

Some of the work performed by trainees has led to policy changes in the public health arena. For example, a Beri Beri outbreak in the northern state of Maranhao in 2006 was thought to stem from

people eating polished rice. This led to a unique intervention involving government alternative food supplies and long-term federal agricultural oversight.

In another instance, a series of outbreaks of non-tuberculosis mycobacterial infection following laparoscopic surgeries led to nationwide efforts to promote sanitation in surgical settings.

Responding to Health Threats

Trainees respond to an average of 20–22 outbreaks a year. Some of their recent investigations include

- **Brazilian Purpuric Fever:** The disease has a 60–80% mortality rate in children. Little is known about the disease and only about 100 cases have ever been diagnosed. In August-September 2007, trainees and supervisors conducted the investigation in a remote region of Brazil. They diagnosed the cases correctly and established an ongoing surveillance system. Since then, no new cases have occurred.
- **Continuous outbreak of non-tuberculosis mycobacterial infections following laparoscopic surgeries:** Since 2005, several thousand cases have occurred, suggesting an absence of infection control measures following surgeries and a need to raise awareness about best practices for sterile surgeries. Trainees traced and characterized the infection and identified risk factors. Because of their efforts, the government has raised awareness about the importance of sterile surgeries, leading to a drop in the number of reported cases of infections.
- **Oral transmission of Chagas disease:** This tropical disease is usually transmitted by bites of blood-sucking insects or by blood transfusions. In 2006 and 2007, trainees have investigated another mode of transmission in this outbreak, which was linked to consumption of the açai fruit that had been contaminated by insects. A graduate is in charge of control efforts and has established a new surveillance and response network.
- **Cholera epidemic in Guinea-Bissau:** In August 2008, a joint EPISUS and CDC team went to Guinea-Bissau (a Portuguese-speaking country in west Africa) to support control of a nationwide cholera epidemic. The team consisted of an EPISUS second-year trainee, a recent graduate, two Epidemic Intelligence Service trainees, and two CDC experts. Activities included validating a commercial cholera rapid diagnostic test, conducting a population survey of water treatment practices, and assessing a strategy of well-chlorination.

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